

Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities: 2012-08-23
Investment Auto Submission Date: 2012-02-27
Date of Last Investment Detail Update: 2012-02-27
Date of Last Exhibit 300A Update: 2012-08-23
Date of Last Revision: 2012-08-23

Agency: 021 - Department of Transportation **Bureau:** 12 - Federal Aviation Administration

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: FAAXX600: Oceanic Automation System: Advanced Technologies and Oceanic Procedures (ATOP)

2. Unique Investment Identifier (Ull): 021-161006572

Section B: Investment Detail

- 1. Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

Advanced Technologies and Oceanic Procedures (ATOP) is the FAA's modernization program for oceanic air traffic control. With ATOP, the FAA significantly reduces the intensive manual processes that today limit the ability of controllers to safely handle airline requests for more efficient tracks or altitudes over long oceanic routes. This investment also allows the FAA to meet international commitments of reducing aircraft separation standards thereby dramatically increasing capacity and efficiency. Specifically this investment: - Fully integrates flight and radar data processing - Detects conflicts between aircraft - Provides satellite data link communication and surveillance capabilities - Removes the need for paper flight strips - Automates manual processes Today ATOP is being used to control air traffic at all three oceanic sites: Oakland, Calif., New York, N.Y. and Anchorage, Alaska Air Route Traffic Control Centers using an integrated oceanic system. Now fully deployed, ATOP manages approximately 80 percent of the world's managed oceanic airspace, including approximately 24 million square miles over the Atlantic, Pacific and Arctic oceans. New capabilities offered by the ATOP system have increased capacity for international air travel and automated the manual processes previously used by controllers. The primary beneficiaries of this investment are the airlines and the flying public. ATOP is currently mixed lifecycle with both safety and efficiency enhancements and sustainment activities. ATOP has a dependency on the

following systems: ERAM, ADS-B, WARP, NNEW, CATMT, TFM and FTI.

2. How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.

Before ATOP, there was limited aircraft tracking and direct communications for oceanic air traffic. Pilots would radio position reports based on onboard aircraft navigational systems to the controller. Due to this uncertainty in position report reliability, overseas flights required greater separation margins to ensure safe flight, and were rarely able to obtain maximum fuel efficiency, minimum travel times, or access to preferred flight paths. Today, ATOP allows oceanic controllers to be in touch with aircraft in mid-oceanic flight thereby allowing properly equipped aircraft and qualified aircrews to operate using reduced oceanic separation criteria while preserving passenger safety and improving efficiency. This enables more aircraft to fly optimal routes, enhancing aircraft flight time as well as fuel and payload efficiency during the oceanic legs of their flights. Additionally reducing lateral (side-to-side) separation may provide space for additional routes between current locations or new direct markets. Reducing longitudinal (nose-to-tail) separation may provide more opportunities to add flights without delays. If funding is reduced the safety and efficiency enhancements would have to be proportionately reduced and the sustainability of the operational system would be deteriorated. Also, depending on the size of the funding reduction several FAA initiatives such as ICAO 2012 implementation, Anchorage Air Route Traffic Control Center (ARTCC) transition from the FDP/MEARTS ATC system to the Ocean21 system, establishing an ARCTIC flight information Region (FIR), and improvements to New York ARTCC control of Bermuda air traffic flow may not be implemented.

3. Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.

The ATOP systems have operated at a 99.99 % availability rate and systems enhancements have been added that allow safer and more efficient air traffic coordination. In FY 2011 the ATOP program was able to provide the capability for Oceanic Centers to implement the new international ICAO 2012 standards and operational procedures, and update the interface standard from the old X.25 protocol to the new Internet Protocol (IP) standard. Software enhancements were provided to allow air traffic controllers to issue automated tailored arrival clearances, allow better access to aircraft messages and improved the aircraft alert list functionality. The program also added functionality to ATOP to allow New York Center to better monitor Bermuda flights. In addition to the enhancements, software maintenance provided 310 software fixes to improve the day-to-day operation of the air traffic control capability.

4. Provide a list of planned accomplishments for current year (CY) and budget year (BY).

In FY 2012: 1.) Allow processing of airlines preferred arrival routes for more efficient coordination between Oceanic and other air traffic facilities. 2.) Allow the ATOP system to automatically process remove strip messages from other air traffic control systems instead of manually. 3.) Allow automated conformance checking of National Air Space (NAS)

amendments to reduce manual processing of flight plan amendments. 4.) Allow the ATOP system to automatically process aeroradio format messages versus controllers processing them manually. 5.) Provide ATOP changes required for the FAA to allow the Airlines to access aircraft conflict probe data to more efficiently route their aircraft. 6.) System maintenance is projected to deliver approximately 350 additional software fixes. In FY 2013: 1.) Provide hardware and software changes for use in the FAA's Anchorage oceanic, offshore and transition airspace. 2.) The automation is intended to address functional deficiencies and inefficiencies in the current automation, consistent with the FAA's Strategic Plan for Oceanic Airspace Enhancements and Separation Reductions. 3.) Implement ICAO North American Region (NAM) Interface to support better coordination in Oceanic airspace between the US and Canadian air traffic control systems. 4.) System maintenance is projected to deliver approximately 350 additional software fixes.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

2007-09-26

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	\$7.6	\$0.6	\$0.6	\$0.6
DME (Excluding Planning) Costs:	\$497.8	\$3.4	\$3.4	\$3.4
DME (Including Planning) Govt. FTEs:	\$37.8	\$0.7	\$0.5	\$0.6
Sub-Total DME (Including Govt. FTE):	\$543.2	\$4.7	\$4.5	\$4.6
O & M Costs:	\$397.7	\$83.1	\$87.1	\$90.0
O & M Govt. FTEs:	\$71.5	\$10.4	\$11.0	\$11.5
Sub-Total O & M Costs (Including Govt. FTE):	\$469.2	\$93.5	\$98.1	\$101.5
Total Cost (Including Govt. FTE):	\$1,012.4	\$98.2	\$102.6	\$106.1
Total Govt. FTE costs:	\$109.3	\$11.1	\$11.5	\$12.1
# of FTE rep by costs:	820	64	64	64
Total change from prior year final President's Budget (\$)		\$0.0	\$-4.0	
Total change from prior year final President's Budget (%)		0.00%	-3.75%	

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

Changes to the Summary of Funding table reflect a \$4M decrease in funding for FY 2012. \$4M was added back to 2014 (\$2M) and 2015 (\$2M) for no net change to program total. FY 2012 funding was reduced by the FY 2012 appropriation adjustment as well as removal of DOT infrastructure adjustment and was transferred to outyear requirements.

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value (\$M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded	6920	DTFAO1-01-C-00065									
Awarded	6920	DTFACT-09-D-00012									
Awarded		DTRT-57-12-D 30003									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

In 2005, an independent review was conducted on Oceanic program management system practices and EVM capabilities. The review assessed the program's current EVM implementation using the FAA approved compliance criteria aligned with the ANSI/EIA 748 Standard. This program is performing EVM at the program level and the FAA Prime Contractor's EVM is in compliance with FAA EVM Policy. Monthly EVM reports are submitted to the FAA EVM focal point. The nature of the ongoing maintenance support - software configuration management, adaptation, product integration, leads to uncertainties that you cannot put a fixed price on since it would lead to increased cost and potential claims. Constant monitoring of the T&M contractors performance by daily contact, weekly meetings, program status reports and constant communications ensures that the ATOP program manager is aware of the status of the work effort at all times. The government does not assume abnormal risk due to these T&M contracts.

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2012-08-23

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)
19	T19 Software Release	This release is the next in a series of software releases which provide both functional safety and efficiency enhancements.			
20	T20 Software Release	This release is the next in a series of software releases which provide both functional safety and efficiency enhancements.			
21	T21 Software Release	This release is the next in a series of software releases which provide both functional safety and efficiency enhancements.			
22	T22 Software Release	This release is the next in a series of software releases which provide both functional safety and efficiency enhancements.			
23	T23 Software Release	This release is the next in a series of software releases which provide both functional safety and efficiency enhancements.			

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities (\$M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance (\$M)	Cost Variance (%)	Total Planned Cost (\$M)	Count of Activities
Project ID	Name	Total Cost of Project Activities (\$M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance (\$M)	Cost Variance (%)	Total Planned Cost (\$M)	Count of Activities
19	T19 Software Release							
20	T20 Software Release							
21	T21 Software Release							
22	T22 Software Release							
23	T23 Software Release							

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
20	T20 Engineering/Requirements	This activity provides the finalized requirements to be developed into the T20 operational software safety and efficiency enhancement release.	2011-10-31	2011-10-31	2011-10-31	364	0	0.00%
19	T19 Software Development	This activity provides for the development of the software required for operational software safety and efficiency enhancements in the T19 release.	2011-11-03	2011-11-03	2011-11-03	367	0	0.00%
20	T20 Software Development	This activity provides for the development of the software required for operational software safety and efficiency enhancements in the T20 release.	2012-04-30	2012-04-30	2012-03-16	365	45	12.33%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
21	T21 Engineering/Requirements	This activity provides the finalized requirements to be developed into the T21 operational software safety and efficiency enhancement release.	2012-04-30	2012-04-30	2012-04-30	273	0	0.00%
22	T22 Engineering/Requirements	This activity provides the finalized requirements to be developed into the T22 operational software safety and efficiency enhancement release.	2012-09-30	2012-10-30		273	-30	-10.99%
21	T21 Software Development	This activity provides for the development of the software required for operational software safety and efficiency enhancements in the T21 release.	2012-10-31	2012-11-30		183	-30	-16.39%
23	T23 Engineering /Requirements	This activity provides the finalized requirements to be developed into the T23 operational software safety and efficiency enhancement release.	2013-02-28	2013-03-31		272	-31	-11.40%

Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
Average fuel savings per passenger seat	Pounds/seat	Customer Results - Service Coverage	Over target	1.000000	1.030000	1.630000	1.040000	Monthly
Average Air Traffic Control (ATC) Response Time to Altitude Change Requests	Minutes	Technology - Efficiency	Under target	5.900000	2.900000	2.100000	2.700000	Monthly
Percent of Requests ATC Cleared	Percentage	Customer Results - Service Accessibility	Over target	74.000000	78.000000	80.000000	78.000000	Monthly
System Reliability	Percentage	Technology - Reliability and Availability	Over target	99.997000	99.997000	100.000000	99.997000	Semi-Annual
System Availability	Percentage	Technology - Reliability and Availability	Over target	99.997000	99.997000	100.000000	99.997000	Semi-Annual